

CLAIMS

What is claimed is:

1. A method of generating an out of zone alert when a sampled biomedical value does not satisfy a condition, wherein the generation of the out of zone alert is performed by an indicator, and the sampled biomedical value is determined in a heartrate monitoring system, and further wherein the indicator does not generate the out of zone alert when the sampled biomedical value fails to satisfy the condition until a sampled biomedical value is determined to satisfy the condition, the method comprising the steps of:
  - 10 determining when a sampled biomedical value satisfies the condition; and thereafter, permitting the generation of the out of zone alert when the sampled biomedical value is determined not to satisfy the condition.
2. A method of generating an out of zone alert when a sampled heartrate value is below a threshold minimum value, wherein the generation of the out of zone alert is performed by an indicator, and the sampled heartrate value is determined in a heartrate monitoring system, and further wherein the indicator does not generate the out of zone alert when the sampled heartrate value is below the threshold minimum value until the threshold minimum value has been reached, the method comprising the steps of:
  - 20 determining when a sampled heartrate value is at or above a threshold minimum value; and permitting the generation of the out of zone alert when the sampled heartrate value falls below the threshold minimum value.
- 25 3. The method as claimed in claim 2, including the step of enabling the indicator so that the indicator will generate the out of zone alert when the sampled heartrate falls below the threshold minimum value.
4. The method as claimed in claim 2, including the steps of:
  - 30 repeatedly sampling heartrate values until a sampled heartrate value is at or exceeds the minimum threshold value; and maintaining the inability to generate out of zone alerts until a sampled heartrate value is determined to be equal to or greater than the threshold minimum value.

5. The method as claimed in claim 4, including the steps of:  
determining a next sampled heartrate value and determining that it is less than the  
threshold minimum value; and  
5 generating the out of zone alert.

6. The method as claimed in claim 5, wherein the generation of the out of zone alert  
is performed audibly and/or visually.

10 7. The method as claimed in claim 2, including the step of inputting the threshold  
minimum value into the heartrate monitoring system.

8. A method of generating an out of zone alert when a sampled heartrate value is  
above a threshold maximum value, wherein the generation of the out of zone alert is  
15 performed by an indicator, and the sampled heartrate value is determined in a heartrate  
monitoring system, and further wherein the indicator does not generate the out of zone  
alert when the sampled heartrate value is above the threshold maximum value until the  
threshold maximum value is greater than a sampled heartrate value, the method  
comprising the steps of:

20 determining when the threshold minimum value is greater than a sampled heartrate  
value; and

permitting the generation of the out of zone alert when a subsequent sampled  
heartrate value is above the threshold maximum value.

25 9. The method as claimed in claim 8, including the step of enabling the indicator so  
that the indicator will generate the out of zone alert when a sampled heartrate value  
exceeds the threshold maximum value.

10. The method as claimed in claim 8, including the steps of:

30 repeatedly sampling heartrate values until the maximum threshold value exceeds a  
sampled heartrate value; and

maintaining the inability to generate out of zone alerts until the maximum  
threshold value exceeds a sampled heartrate value.

11. The method as claimed in claim 8, including the steps of:
  - determining a next sampled heartrate value and determining that it is greater than the threshold maximum value; and
  - 5 generating the out of zone alert.
12. The method as claimed in claim 8, wherein the generation of the out of zone alert is performed audibly and/or visually.
- 10 13. The method as claimed in claim 8, including the step of inputting the threshold maximum value into the heartrate monitoring system.
14. A method of generating an out of zone alert when a sampled heartrate value is outside a Target Zone, wherein the generation of the out of zone alert is performed by an indicator, and the sampled heartrate value is determined in a heartrate monitoring system, and further wherein the indicator does not generate the out of zone alert when the sampled heartrate value is outside the Target Zone until a sampled heartrate value is determined to be within the Target Zone, the method comprising the steps of:
  - determining when a sampled heartrate is within the Target Zone; and
  - 20 thereafter permitting the generation of the out of zone alert when the sampled heartrate is determined to be outside the Target Zone.
15. A method of generating an out of zone alert when a sampled heartrate value does not satisfy a condition, wherein the generation of the out of zone alert is performed by an indicator, and the sampled heartrate value is determined in a heartrate monitoring system, the method comprising the steps of:
  - determining whether the sampled heartrate fails to satisfy a condition for more than a predetermined continuous period of time, and
  - 25 if so:
    - 30 suppressing further generation of the out of zone alert even if a next successive sampled heartrate value fails to satisfy the condition, and
    - if not:
      - generating the out of zone alert.

16. The method as claimed in claim 15, wherein the step of determining whether the sampled heartrate fails to satisfy a condition for more than a predetermined continuous period of time comprises the steps of:

5        initiating a timer with a predetermined period of time;  
determining that a successive sampled heartrate fails to satisfy the condition; and  
determining whether the predetermined period of time has elapsed.

17. The method as claimed in claim 16, including the steps of:

10        continually suppressing further generation of the out of zone alert for successive sampled heartrate value that fail to satisfy the condition until a sampled heartrate value satisfies the condition, and when the sampled heartrate value does satisfy the condition, indicating that the sampled heartrate value has satisfied the condition.

15        18. The method as claimed in claim 17, including the step of generating an out of zone indication if a successive sampled heartrate value fails to satisfy the condition.

19. The method as claimed in claim 15, wherein the condition is whether the sampled heartrate value is outside a Target Zone.

20        20. The method as claimed in claim 15, wherein the condition is whether the sampled heartrate value is above a threshold minimum value.

21. The method as claimed in claim 15, wherein the condition is whether the sampled  
25        heartrate value is below a threshold maximum value.